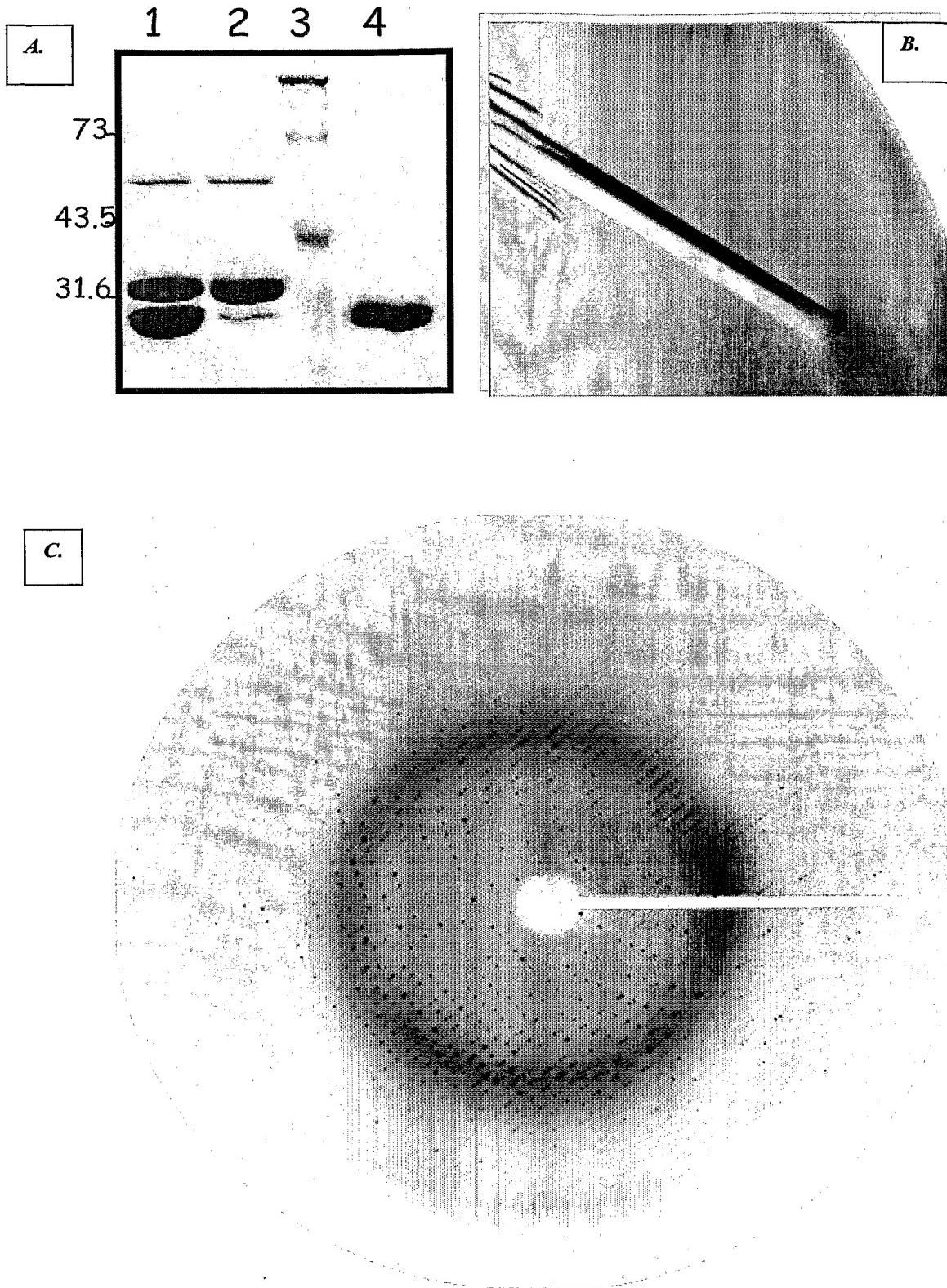
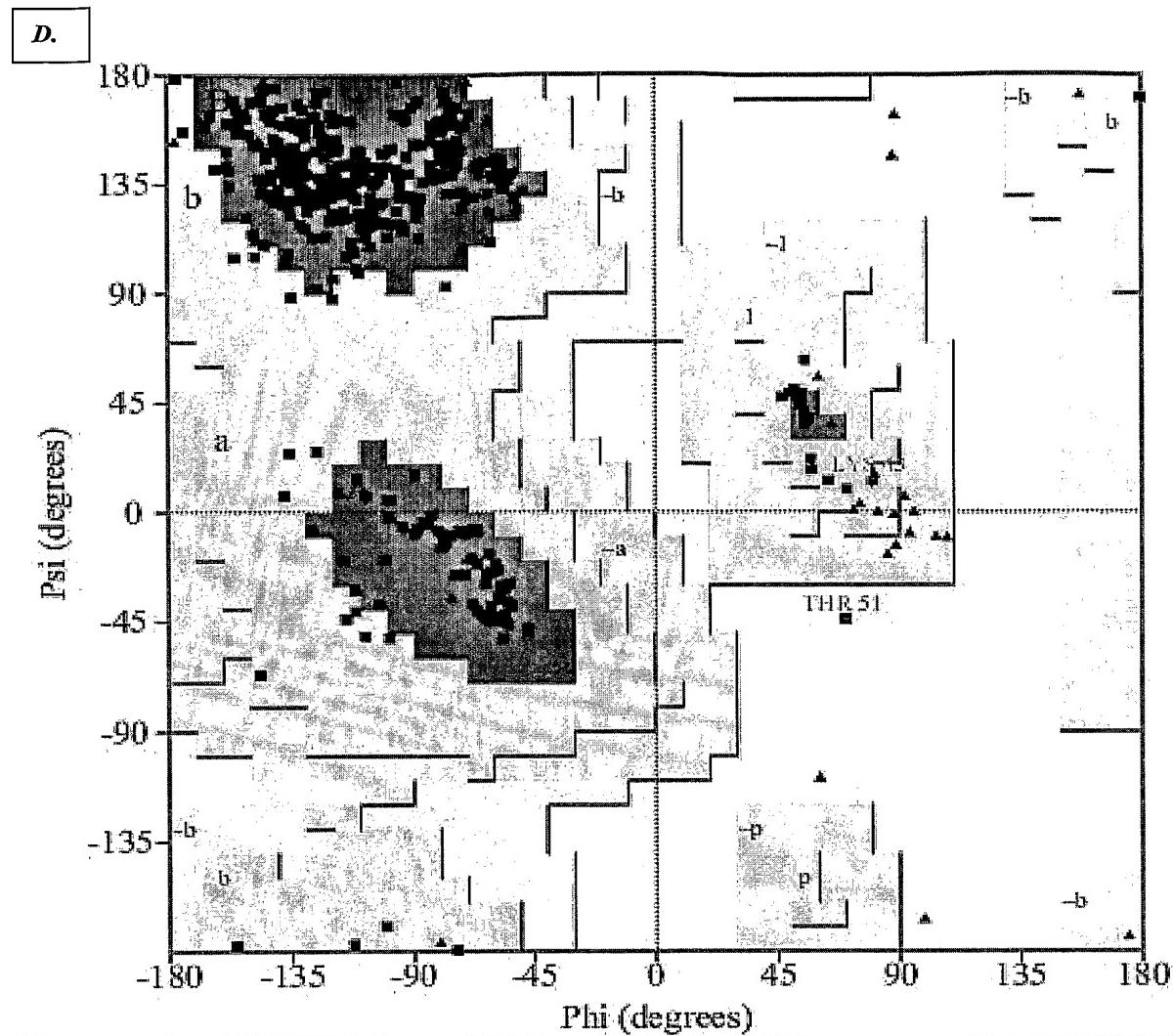
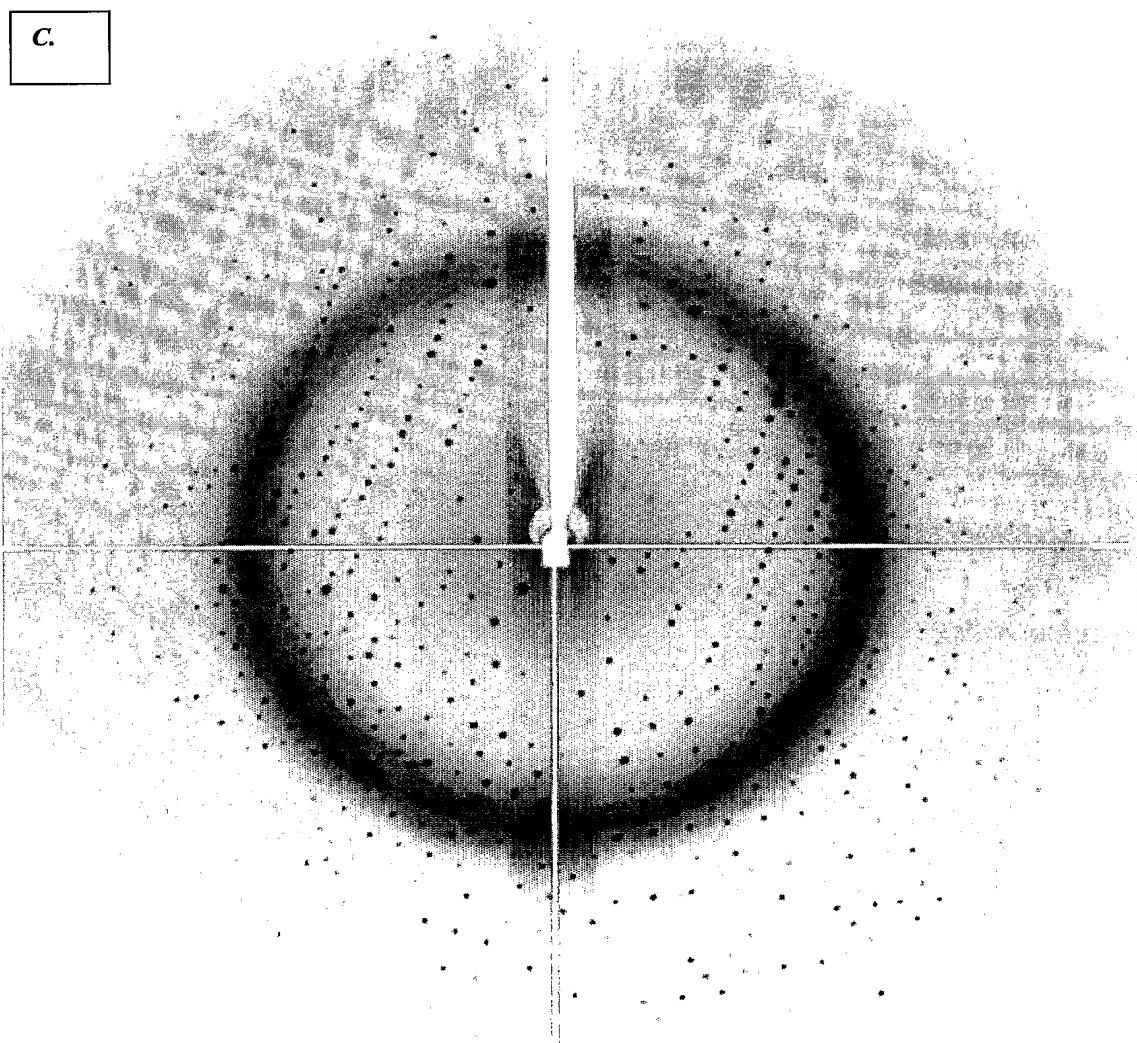
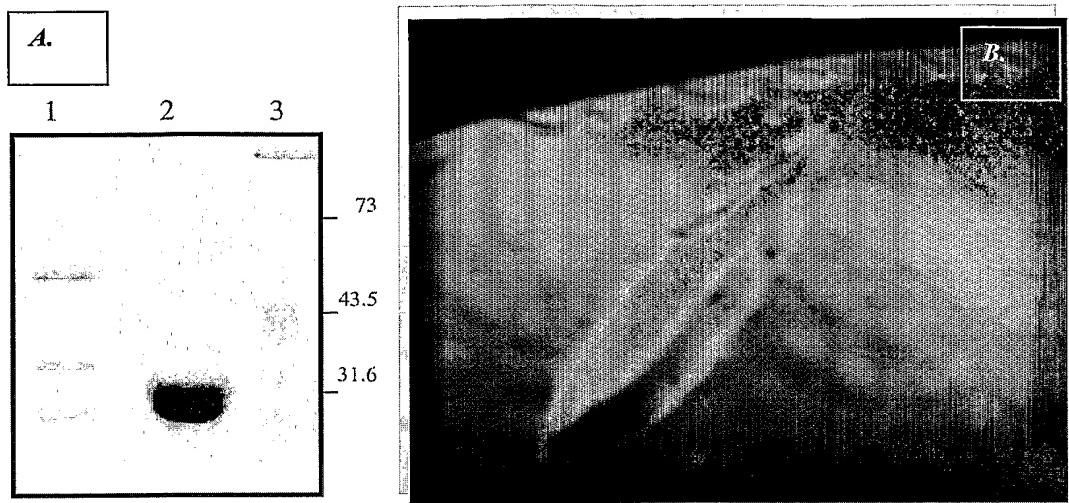
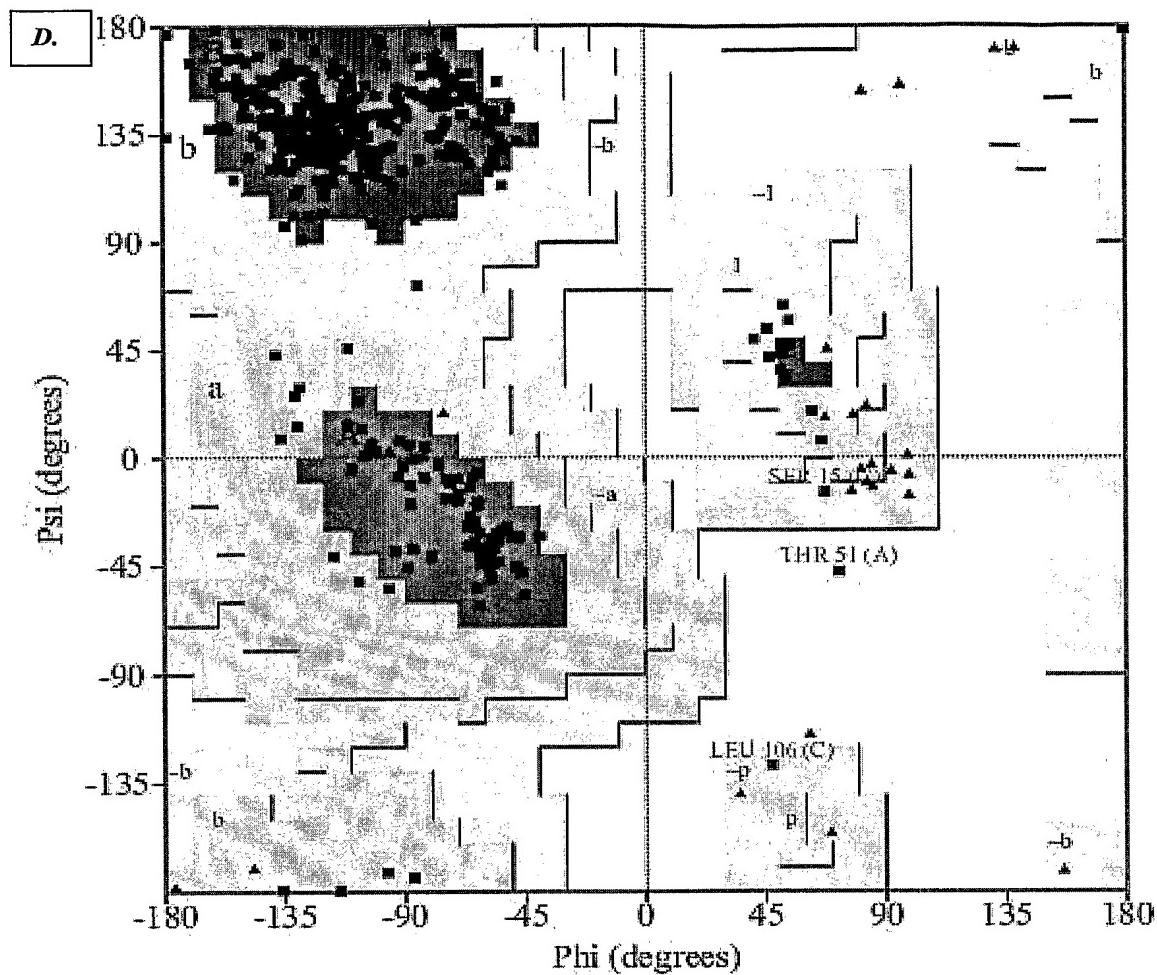
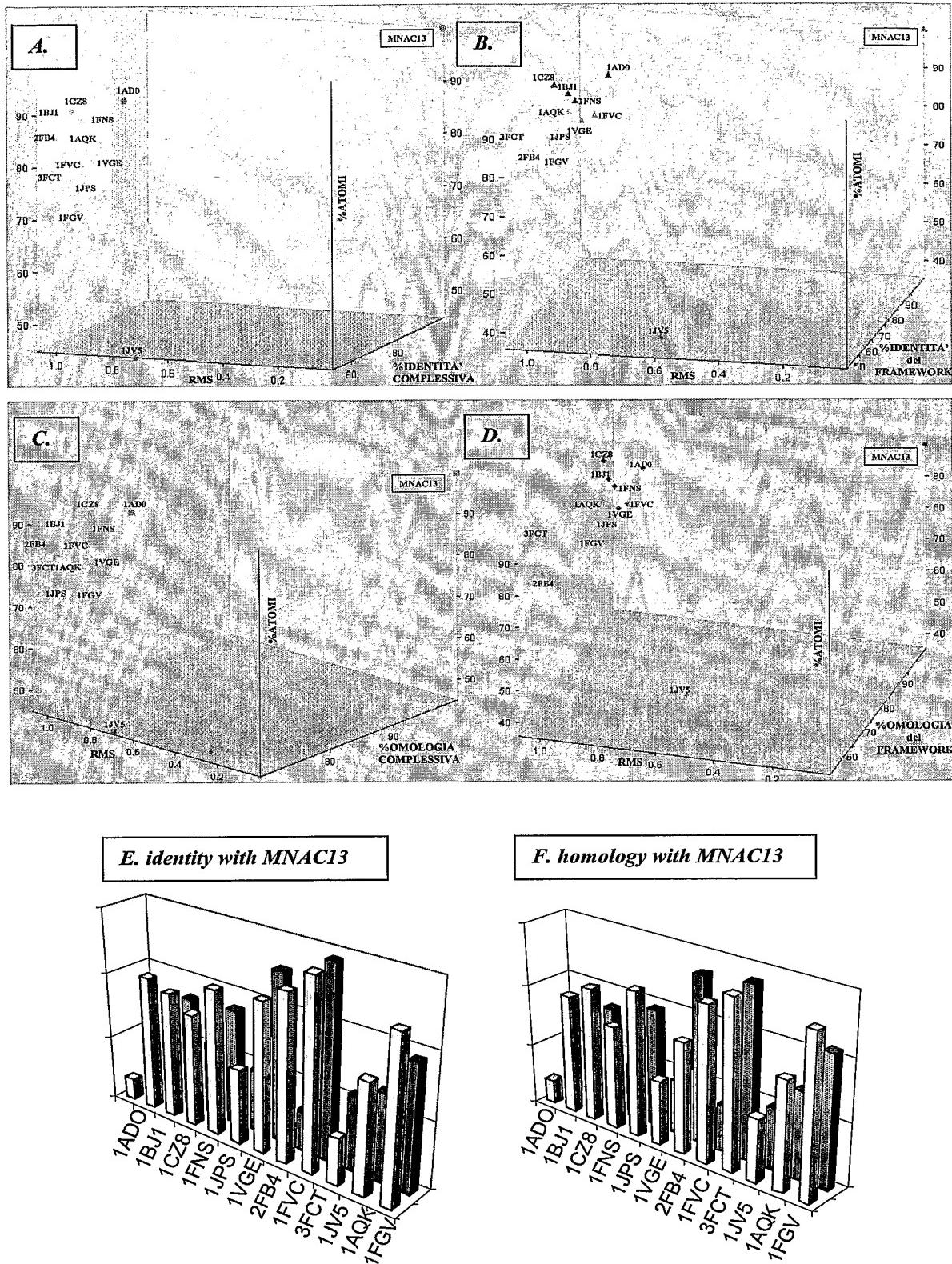


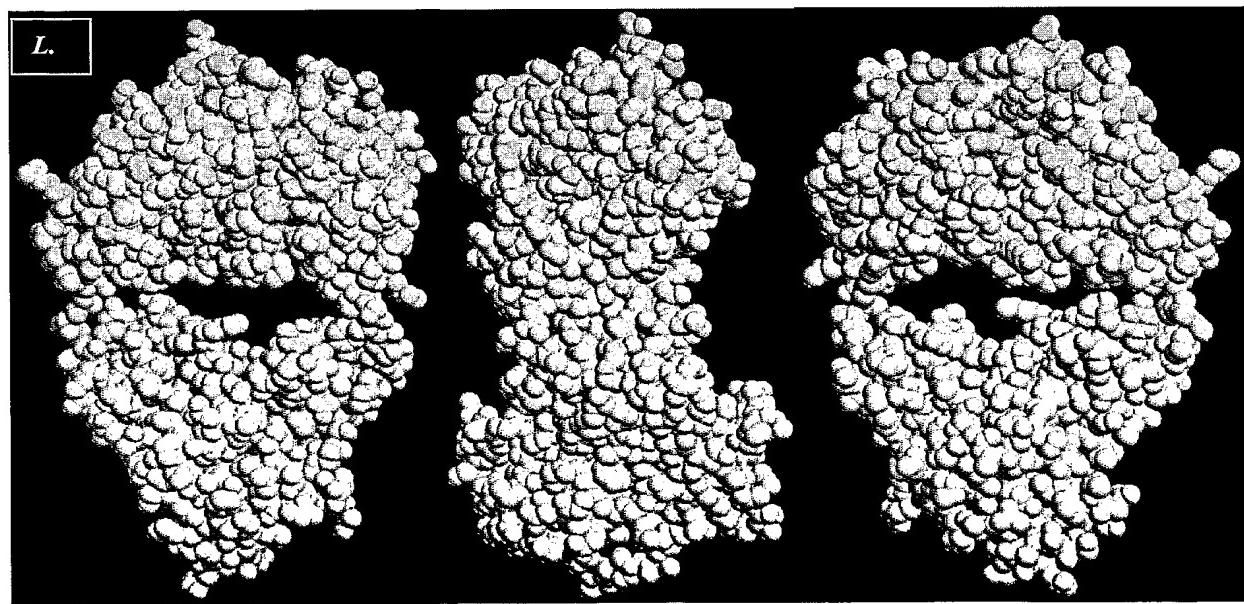
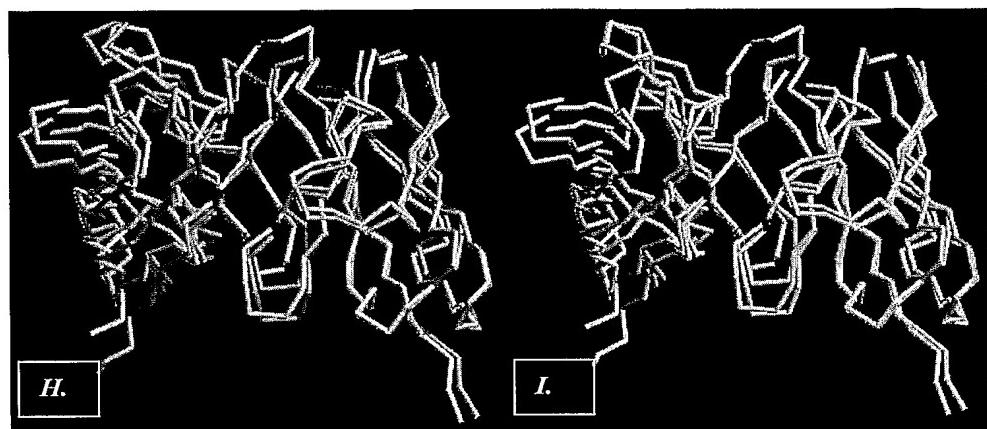
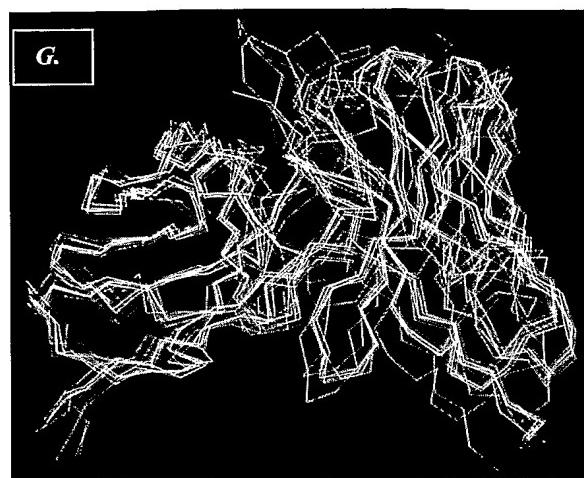
**FIG. 1 (1 of 2)**

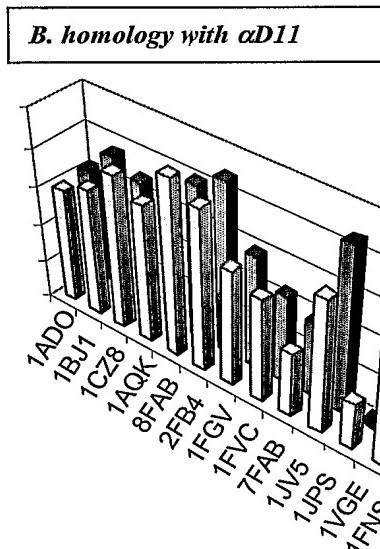
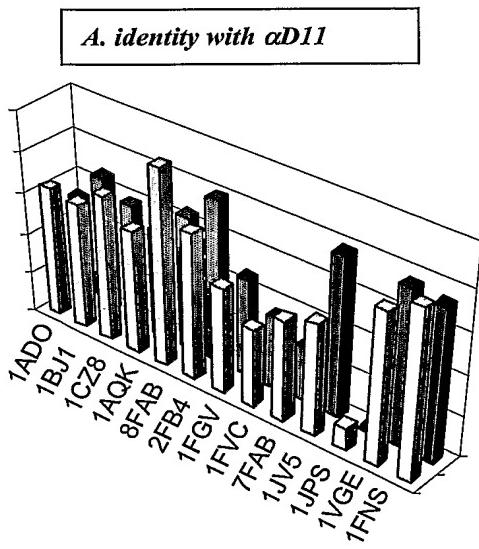
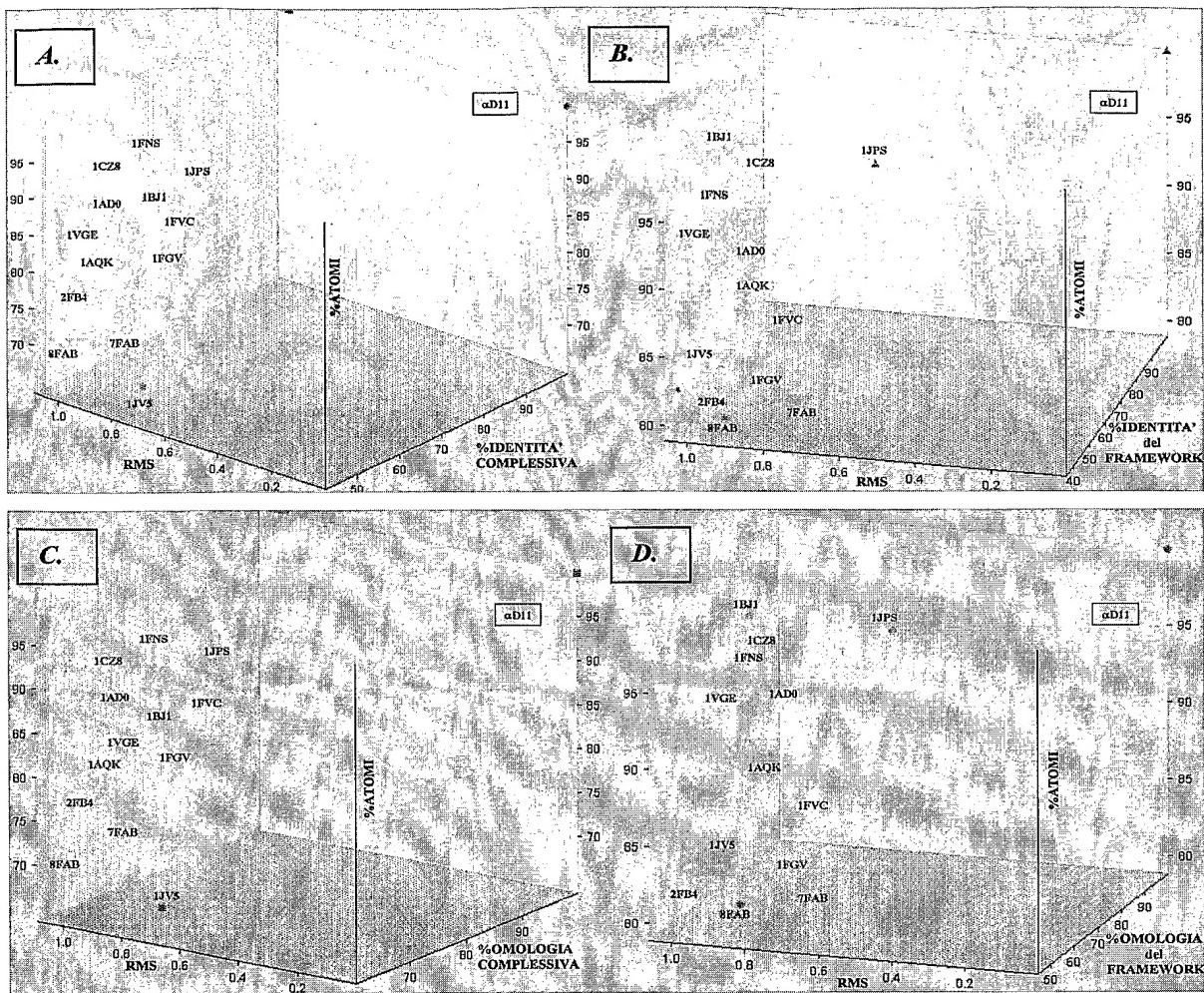
*FIG. 1 (2 of 2)*

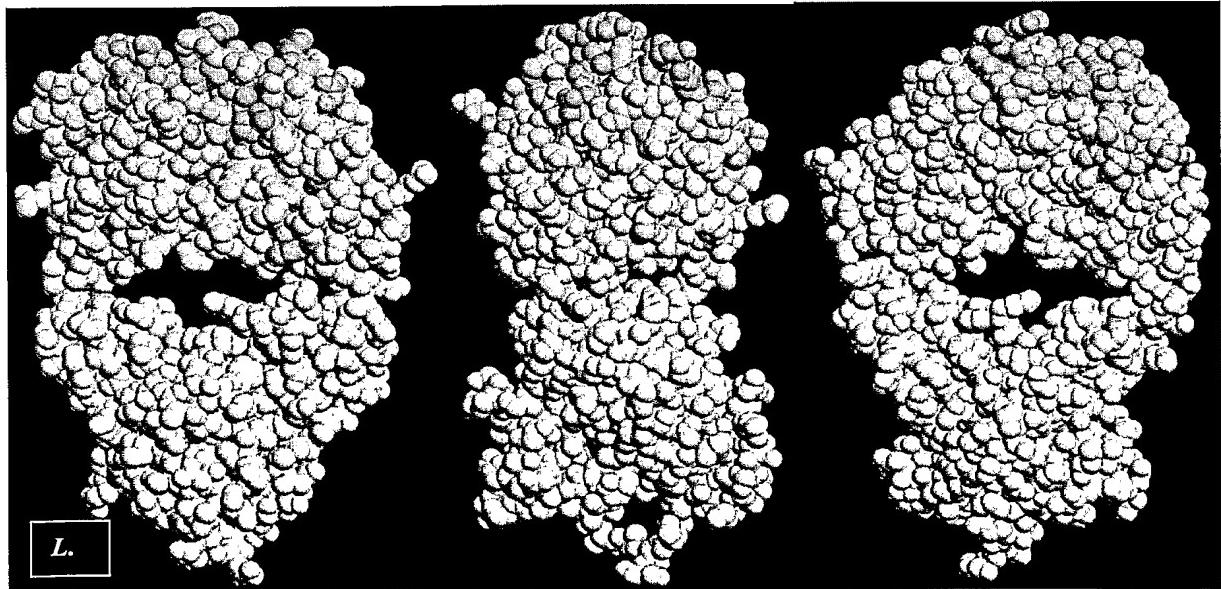
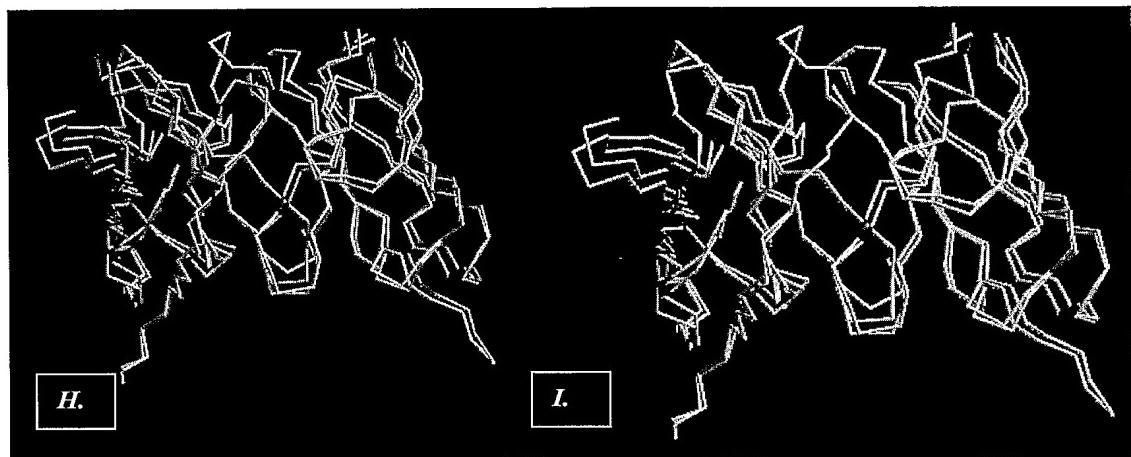
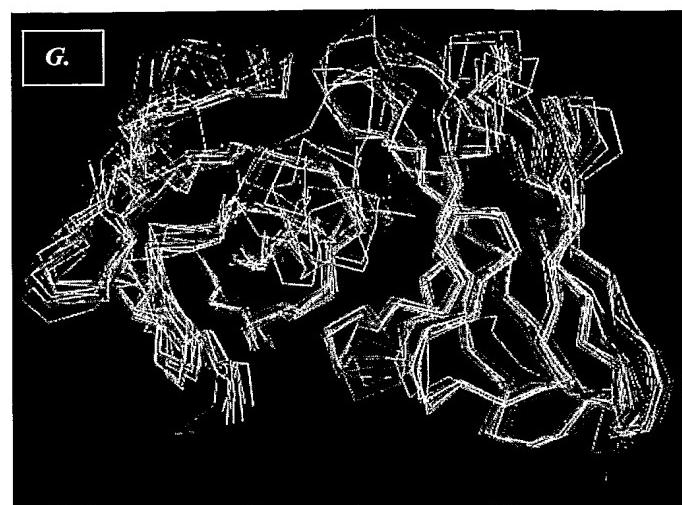
**FIG. 2 (1 of 2)**

**FIG. 2 (2 of 2)**

**FIG. 3 (1 of 2)**

**FIG. 3 (2 of 2)**

**FIG. 4 (1 of 2)**

**FIG. 4 (2 of 2)**

**FIG. 5****A. Fv fragment of heavy chain**

	20	40	
MNAC13	EVKLVESGGGLVQPGGSLKLSCAASGFTFSTYTM <span style="font-family: monospace;">S</span> WARQTPEKRLEWVAYISKG--		
1AD0	EVQLLESGGGLVQPGGSLRLSCATSGFTFTDYYMNWVRQAPGKGLEWLGFIGNKAN		
Hum MNAC13	<u>EVQLLESGGGLVQPGGSLRLSCAASGFTFSTYTM<span style="font-family: monospace;">S</span>WARQAPGKGLEWVAYISKG--</u>		
	60	80	100
MNAC13	GGSTYYPDTVKGRFTISRDNAKNTLYLQMSSLKSEDTALYYCARGAMFGNDFFFPM <span style="font-family: monospace;">D</span>		
1AD0	GYTTEYSASVKGRTFISRDKSKSTLYLQMNTLQAEDSAIYYCTRDR----GLRFYFD		
Hum MNAC13	<u>GGSTYYPDTVKGRFTISRDNSKNTLYLQMNSLAEDSAVYYCARGAMFGNDFFFPM<span style="font-family: monospace;">D</span></u>		
MNAC13	RWGQGT <span style="font-family: monospace;">S</span> TVTVSSA		
1AD0	YWGQGTLVTVSSA		
Hum MNAC13	<u>RWGQGTLVTVSSA</u>		

**B. Fv fragment of light chain**

	20	40	
MNAC13	DIVLTQSPAIMSASLGEEVT <span style="font-family: monospace;">L</span> TCSASSSVSYMH <span style="font-family: monospace;">W</span> YQQKSGTSPKLLIYTT <span style="font-family: monospace;">S</span> NL		
1AD0	QTVLTQSPSSLSVS <span style="font-family: monospace;">V</span> GDRV <span style="font-family: monospace;">T</span> ITCRASSSVTYIH <span style="font-family: monospace;">W</span> YQQKPGLAP <span style="font-family: monospace;">K</span> S <span style="font-family: monospace;">L</span> IYAT <span style="font-family: monospace;">S</span> NL		
Hum MNAC13	<u>DIVLTQSPSSLSASVGDRV<span style="font-family: monospace;">T</span>ITCSASSSVSYMH<span style="font-family: monospace;">W</span>YQQKPGQAPKLLIYTT<span style="font-family: monospace;">S</span>NL</u>		
	60	80	100
MNAC13	ASGVPSRFSGSGSGTFYSLTISSVEAEDAADYYCHQWSSYPWTFGGGTK <span style="font-family: monospace;">L</span> EIK		
1AD0	ASGVPSRFSGSGSGTDY <span style="font-family: monospace;">T</span> FTISSLQPEDIA <span style="font-family: monospace;">T</span> YYCQHWS <span style="font-family: monospace;">S</span> KPPTFGQG <span style="font-family: monospace;">T</span> KVEVK		
Hum MNAC13	<u>ASGVPSRFSGSGSGTDY<span style="font-family: monospace;">T</span>LTISSLQPEDAVYYCHQWSSYPWTFGGGTK<span style="font-family: monospace;">V</span>EIK</u>		

*FIG. 6*

#### *A. Fv fragment of heavy chain*

#### **B. Fv fragment of light chain**

	20	40	
$\alpha$ D11	DIQMTQSPASLSASLGETVTIECRASEDIYNALAWYQQKPGKSPQLLIYNTDTL 		
1JPS	DIQMTQSPSSLSASVGDRVITTCRASRDIKSYLNWYQQKPGKAPKVLIIYYATSL		
Hum $\alpha$ D11	<b>DIQMTQSPSSLSASVGDRVITTCRASEDIYNALAWYQQKPGKAPKLLIYNTDTL</b>		
	60	80	100
$\alpha$ D11	HTGVPSRFSGSGSGTQYSLKINSLOQEDVASYFCQHYFHYPRTFGGGTKLELK 		
1JPS	AEGVPSRFSGSGSGTDYTLTISSLQPEDFATYYCLQHGESPWTGQGTKVEIK		
Hum $\alpha$ D11	<b>HTGVPSRFSGSGSGTDYTLTISSLQPEDFATYFCQHYFHYPRTFGQGTKVEIK</b>		

**FIG. 7 (1 of 4)****A) MNAC13 VL**

GAC ATT GTT CTC TCC CAG TCT CCA GCA ATC ATG TCT GCA TCT CTA GGG GAG GAT ACC CTA ACC TGC AGT GCC AGC  
 TTG AGT GTA AGT TAC ATG CAC TGG TAC CAG CAG AAG TCA GGC ACT TCT CCC AAG CTC TTG ATT TAT ACT ACA TCC AAC  
 CTG GCT TCT GGA GTC CCT TCT CGC TTC AGT GGC AGT GGG TCT GGG ACC TTT TAT TCT CTC ACA ATC AGT AGT GTG GAG  
 GCT GAA GAT GCT GCC GAT TAT TAC TGC CAT CAG TGG AGT AGT TAT CCA TGG ACG TTC GGT GGA GGC ACC AAG CTG GAA  
 ATC AAA

**B) MNAC13 VH**

GAG GTG AAG CTG GTG GAG TCT GGG GGA GGT TTA GTG CAG CCT GGA GGG TCC CTG AAA CTC TCC TGT GCA GCC TCT GGA  
 TTC ACT TTC AGT ACC TAT ACC ATG TCT TGG GCT CGC CAG ACA CCA GAG AAG CTG GAG GTC GCA TAC ATT AGT  
 AAA GGT GGT GGT AGT ACC TAC TAT CCA GAC ACT GTA AAG GGC CGA TTC ACC ATC TCC AGG GAC AAT GCG AAG AAC ACC  
 CTG TAC CTG CAA ATG AGC AGT CTG AAG TCT GAG GAC ACG GCC TTG TAT TAC TGT GCA AGA GGG GCT ATG TAT GGT AAC  
 GAT TTT TTC TAT CCT ATG GAC TAC TGG GGT CAA GGA ACC TCA GTC ACC GTC TCC TCA

### C) MNAC13 GRAFTED VL

FIG. 7 (2 of 4)

5' ACA GGC GTG CAC TCC GAC ATT GTC CTC ACC CAG TCT CCA TCC AGC CTC TGT GCG TCT GTC GGG GAC CGG GTC ACC ATT  
 Oligo L1S  
 D I V L T Q S P S S L S A S V G D R V T I T C S  
 3'  
 5'

CGG TCG AGA TCA CAC TCA ATG TAC GTG ACC ATG GTC GTC TTC GGT CCG  
 OLIGO L2AS 3'  
 TGG TAC CAG CAG AAG CCA GGC AAG GCT CCC AAG CTC CTG ATT TAT ACT ACA TCC AAC CTG  
 OLIGO L3S 3'  
 A S S V S Y M H W Y Q K P G K A P K L L I Y T T S N L  
 5' 5'

5' A S G V P S R F S G S G T D Y T L T I S S L Q P E D F  
 GCT TCT GGA GTC CCT TCT CGA AGA CCT CAG GGA AGA GCG AAG TCG CCG TCA CCC AGA CCC TGG CTA ATA TGG GAG TGT TAG TCA TCA GAC  
 3' ACC CTC ACA ATC AGT AGT CTG CAG CCT GAA GAT TTC  
 Oligo L4AS

$5'$ A T Y C H Q W S S Y P W T F G G T K V E I K GCC ACC TAT TAC TGC CAT CAG TGG AGT AGT TAT CCA TGG ACG ACC TCA TCA ATA GGT ACC TGC AAG CCA CCT CGG TGG TTC CAC CTT TAT TTG GCA CTC ATC TTA TCT	$3'$ OLIGO L5S OLIGO L6AS
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AGA TTG AAT  
3' 5'

FIG. 7 (3 of 4)

#### D) MNAC13 GRAFTED VH

5' ACA GGC GCG CAC TCC GAG GTG CAG CTG CTG GAG TCT GGT CCT GGA GGG TCC CTG CAG CGC CTC TCC TGT  
 3' CCC AGG GAC GCG GAG AGG ACA CGT CGG  
 5' 3'  
 E V Q L L E S G G G L V Q P G S L R L S C A A  
 OLIGO HIS

$5'$ S G F T F S T Y T M S W A R Q A P G K G L E W V A Y I S K AGA CCT AAG TGA AAG TCA TGG ATA TGG TAC TCG ACC CGA GCG GTC CGG GGT CCC $3'$	OLIGO H3S TGG GCT CGC CGC CCA GGG AAG GGG CTG GAG TGG GTC GCA TAC ATT AGT AAA OLIGO H2AS $5'$	$3'$ AAG AAC ACC CTG TAC CTG CAA TTG AGC TGG TAG AGG TCC CTG CCG GCT AAG TGG TAG TCC TTG AGC TTC TGG GAC ATG GAC GTT OLIGO H4AS $5'$
$5'$ G G G S T Y Y P D T V K G R F T I S R D N S K N T L Y L Q GGT GGT AGT AGT ACC TAC TAT CCA GAC CCA TCA TGG ATG ATA GGT CTG TGA CAT TTC GCT GCG GCT AAG TGG TAG TCC TTG AGC TTC TGG GAC ATG GAC GTT $3'$	$3'$ G G G S T Y Y P D T V K G R F T I S R D N S K N T L Y L Q AAG AAC ACC CTG TAC CTG CAA TTG AGC TGG TAG AGG TCC CTG CCG GCT AAG TGG TAG TCC TTG AGC TTC TGG GAC ATG GAC GTT OLIGO H4AS $5'$	

GGG ACC CCA GTT CCT TGG GAC CAG TGG CAG AGG  
3' 5'

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FIG. 7 (4 of 4)

E<sub>0</sub> OLIGOs TO SYNTHESIZE MNAC13 VL

OLIGO L1S  
ACA GGC GTG CAC TCC GAC ATT GTT CTC ACC CAG TCT CCA TCC AGC CTG TCT GCG TCT GTC GGG GAC CGG GTC ACC ATT

OLIGO L2AS  
GCC TGG CTT CTG CTG GTA CCA GTG CAT GTA ACT CAC ACT AGA GCT GGC GCT GCA GGT AAT GGT GAC CGG GTC CCC GAC

OLIGO L3S  
TGG TAC CAG CAG AAG CCA GGC AAG GCT CCC AAG CTC CTG ATT TAT ACT ACA TCC AAC CTG GCT TCT GGA GTC CCT TCT  
CAG ACT ACT GAT TGT GAG GGT ATA ATC GGT CCT GAA GAT CCC ACT GCC GCT GAA GCG AGA AGG GAC TCC AGA AGC CAG

OLIGO L4AS  
ACC CTC ACA ATC AGT AGT CTG CAG CCT GAA GAT TTC GCC ACC TAT TAC TGC CAT CAG TGG AGT AGT TAT CCA TGG ACG

OLIGO L5S  
TAA GTT AGA TCT ATT CTA CTC ACG TTT TAT TTC CAC CTT GGT GCC TCC ACC GAA CGT CCA TGG ATA ACT ACT CCA

OLIGO L6AS  
TAA GTT AGA TCT ATT CTA CTC ACG TTT TAT TTC CAC CTT GGT GCC TCC ACC GAA CGT CCA TGG ATA ACT ACT CCA

E<sub>0</sub> OLIGOs TO SYNTHESIZE MNAC13 VH

OLIGO H1S  
ACA GGC GCG CAC TCC GAG GTG CAG CTG CTG GAG TCT GGG GGA GGT TTA GTG CAG CCT GGA GGG TCC CTG CGC CTC TCC TGT

OLIGO H2AS  
CCC TGG GGC CTG GCG AGC CCA GCT CAT GGT ACT GAA AGT GAA TCC AGA GGC TGC ACA GGA GAG GCG CAG GGA CCC

OLIGO H3S  
TGG GCT CGC CAG GCC CCA GGG AAG GGG CTG GAG TGG GTC GCA TAC ATT AGT AAA GGT GGT AGT ACC TAC TAT CCA GAC

OLIGO H4AS  
TGG CAG GTA CAG GGT CTT CGA GTT GTC CCT GGA GAT GGT GAA TCG GCC CCT TAC AGT GTC TGG ATA GTC GGT ACT ACC

OLIGO H5S  
AAG AAC ACC CTG CAA ATG AAC AGT CTG CGG GCT GAG GAC AGC GCC GCC GTC TAT TAC TGT GCA AGA GGG GCT ATG TTT

OLIGO H6AS  
GCA GAC GGT GAC CAG GGT TCC TTG ACC CCA GGG GTC CAT AGG AAA GAA AAA ATC GTT ACC AAA CAT AGC CCC TCT TGC ACA

**FIG. 8 (1 of 4)****A) adII VL**

GAC ATC CAG ATG ACC CAG TCT CCA GCT TCC CTG TCT GCA TCT CTG GGA ACT GTC ACC ATC GAA TGT CGA GCA AGT GAG GAC ATT  
 TAT AAT GCT TTA GCA TGG TAT CAG CAG AAG CCA GGG AAA TCT CCT CAG CTC ATC TAT AAT ACA GAT ACC TTG CAT ACT GGG GTC  
 CCA TCA CGA TTC AGT GGC AGT GGA TCT GGT ACA CAA TAT CTC AAG ATA AAC AGC CTG CAA TCT GAA GAT GTC GCA AGT TAT TTC  
 TGT CAG CAC TAT TTC CAT TAT CCT CGG ACG TTC GGT GGA GGG ACC AAG CTG GAG ATC AAA

**B) adII VH**

CAG GTG CAG CTG GTG GAA TCA GGA CCT GGT CTG GTG CAG CCC TCA CAG ACC CTC ACC TGC ACT GTC TCT GGG TTC TCA CTA  
 ACC AAC AAC AAT GTG AAC TGG GTT CGA CAG GCT ACA GGA AGA GGT CTG GAG TGG AGT GGA GGA GTC TGG GCT GGT GGA GCC ACA GAT  
 TAC AAT TCA GCT CTC AAA TCC CGA CTG CTG ACC ATC ACT AGG GAC ACC TCC AAG AGC CAA GTT TTC TTA AAA ATG CAC ATG CTG CAA  
 TCT GAA GAC ACA GCC ACT TAC TGT GCC AGA GAC GGG GGC TAT AGC AGC TCT ACC CTC TAT GCT ATG GAT GCC TGG GGT CAA GGA  
 ACT TCG GTC ACC GTC TCC TCA

FIG. 8 (2 of 4)

### C) *adII GRAFTED VL*

$\text{D I Q M T Q S P S S L S A S V G D R V T I T C R}$ <u>ACA GGC GTG CAC TCC GAC ATC CAG ACC CAG TCT CCA TCT TCC CTG TCT GCA TCT GTG GGA GAC CGC GTC ACC ATC</u> <u>CAC CCT CTG GCG CAG TGG TAG TGT ACA GCT</u>	$\text{3'}$ $\text{5'}$	$\text{A S E D I Y N A L A W Y Q Q K P G K A P K L L I Y N T D T}$ <u>Oligo L3S</u> <u>GCA TGG TAT CAG CAG AAG CCA GGG AAA GCT CCT AAG CTC CTG ATC TAT AAT ACA GAT ACC</u> <u>CGT TCA CTC CTG TAA ATA TTA CGA AAT CGT ACC ATA GTC GTC TTC GGT</u> <u>Oligo L2AS</u>	$\text{3'}$ $\text{5'}$
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$5'$ L H T G V P S R F S G S G T D Y T L T I S S L Q P E D TTG CAT ACA GGG GTC CCA AAC GTA TGT CCC CAG GGT AGT GCT AAG TCA CCG TCA CCT AGA CCA TGT CTG ATA TGA GAG TGC TAT TCG TCG GAC $3'$ OLIGO L4AS	$3'$ F A T Y F C Q H Y F H Y P R T F G Q G T K V E I K TTC GCA ACT TAT TTC TGT CAG CAC TAT TTC CAT TAT CCT CGG GTG ATA AAG GTA ATA GGA GCC TGC AAG CCA GTT CCC TGG TTC CAC CTC TAG TTT GCA CTC ATC TTA $5'$ OLIGO L6AS
---	---

AGA TCT AAC  
3' 5'

FIG. 8 (3 of 4)

#### D) *adII GRAFTED VH*

5' ACA GGC GCG CAC TCC GAG GTC CAG CTG GAA TCA GGA GGT CTRG CAG CCC GGA GGG TCC CTRG CGC CTC AGC TGC CCC AGG GAC GCG GAG TCG ACG CGA CGG 3'  
 3' Oligo H1S  
 5'

5' AGA CCG AAG AGT GAT TGG TTG TTA CAC TTG ACC CAA GCT GTC CGA GGT CCT  
 3' Oligo H2AS  
 5' AAC TGG GTT CGA CAG GCT CCA GGA AAA GGT CTG GAG TGG GTG GGA GGA GTC TGG GCT  
 3' Oligo H3S

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GGT GCA GGC ACA GAT TAC AAT TCA CCT CGG TGT CTA ATG TTA AGT CGA GAG TTT AGG GCT AAG TGG TAG TCA GCG CTG TTG AGG TTC TTG TGT CGA ATG AAT GTT TAC OLIGO H4AS 3' 5'

5' AAC AGT CTG CGC GCT GAA GAC ACA GCC GTT TAC TAC TGT GCC AGA GAC GGG GGC TAT AGC CGG TCT CTG CCC CCG ATA TCG TCG AGA TGG GAG ATA CGA TAC CTA CGG  
 3' N S L R A E D T A V Y C A R D G G Y S S T L Y A M D A 3'  
 5' AAC AGT CTG CGC GCT GAA GAC ACA GCC GTT TAC TAC TGT GCC AGA GAC GGG GGC TAT AGC CGG TCT CTG CCC CCG ATA TCG TCG AGA TGG GAG ATA CGA TAC CTA CGG  
 3' N S L R A E D T A V Y C A R D G G Y S S T L Y A M D A 3'  
 OLIGO 5S  
 OLIGO H6AS

ACC CCA GTT CCT TGA GAC CAG TGG CAG AGG AGT  
 W G Q G T I V T V S S  
 3'

*FIG. 8 (4 of 4)**E) OLIGOS TO SYNTHESIZE dD11 VII*OLIGO L1S

ACA GGC GTC CAC TCC GAC ATC CAG ATG ACC CAG TCT CCA TCT TCC CTG TCT GCA TCT GTC GGA GAC CGC GTC ACC ATC

OLIGO L2AS

TGG CTT CTG CTG ATA CCA TGG TAA AGC ATT ATA AAT GTC CTC ACT TGC TCG ACA TGT GAT GGT GAC GCG GTC TCC CAC

OLIGO L3S

GCA TGG TAT CAG CAG AAG CCA GGG AAA GCT CCT AAG CTC CTG ATC TAT AAT ACA GAT ACC TTG CAT ACA GGG GTC CCA

OLIGO L4AS

CAG GCT GCT TAT CGT GAG AGT ATA GTC TGT ACC AGA TCC ACT GCC ACT GAA TCG TGA TGG GAC CCC TGT ATG CAA GGT

OLIGO L5S

ACT CTC ACG ATA AGC AGC CTG CAA CCT GAA GAT TTC GCA ACT TAT TTC TGT CAG CAC TAT TTC CAT TAT CCT CGG

OLIGO L6AS

CAA TCT AGA ATT CTA CTC ACG TTT GAT CTC CAC CTT GGT CCC TTG ACC GAA CGT CCG AGG ATA ATG GAA ATA GTG

*F) OLIGOS TO SYNTHESIZE dD11 VH*OLIGO H1S

ACA GGC GCG CAC TCC GAG GTC CAG CTG GGG GAA GCT GTC GGT CTG GAG CCC GGA GGG TCC CTG CGC CTC AGC TGC

OLIGO H2AS

TCC TGG AGC CTG TCG AAC CCA GTT CAC ATT GTT GTT GGT TAG TGA GAA GCC AGA GGC AGC GCA GCT GAG GCG CAG GGA CCC

OLIGO H3S

AAC TGG GTT CGA CAG GCT CCA GGG AAA GGT CTG GAG TGG GGT GGA GTC TGG GCT GGT GGA GCC ACA GAT TAC AAT TCA

OLIGO H4AS

CAT TTG TAA GTA AGC TGT GTT CTT GGA GTT GTC GCG ACT GAT GGT GAA TCG GGA TTT GAG AGC TGA ATT GTA ATC TGT GGC TCC

OLIGO H5S

AAG AAC ACA GCA GCT TAC TAA CAA ATG AAC AGT CTG CGC GCT GAA GAC GCA GCC GTT TAC TAC TGT GCC AGA GAC GGG GTC TAT AGC

OLIGO H6AS

TGA GGA GAC GCT GAC CAG AGT TCC TTG ACC CCA GGC ATC CAT AGC ATA GAG GGT AGA GCT GCT ATA GCA CCC GTC TCT GCC

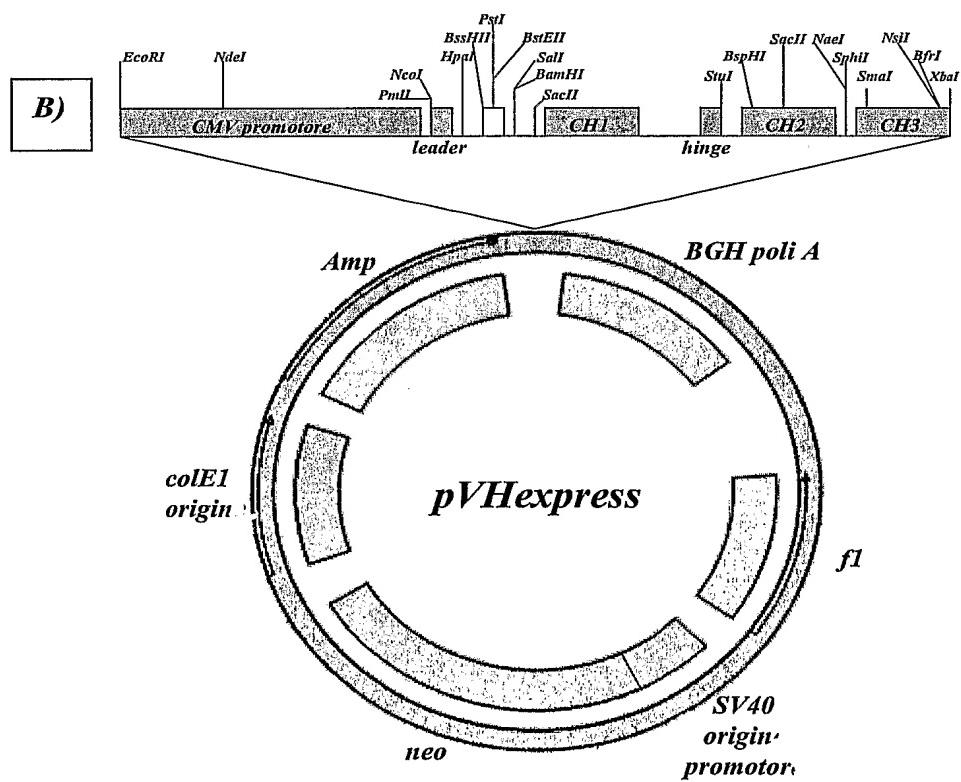
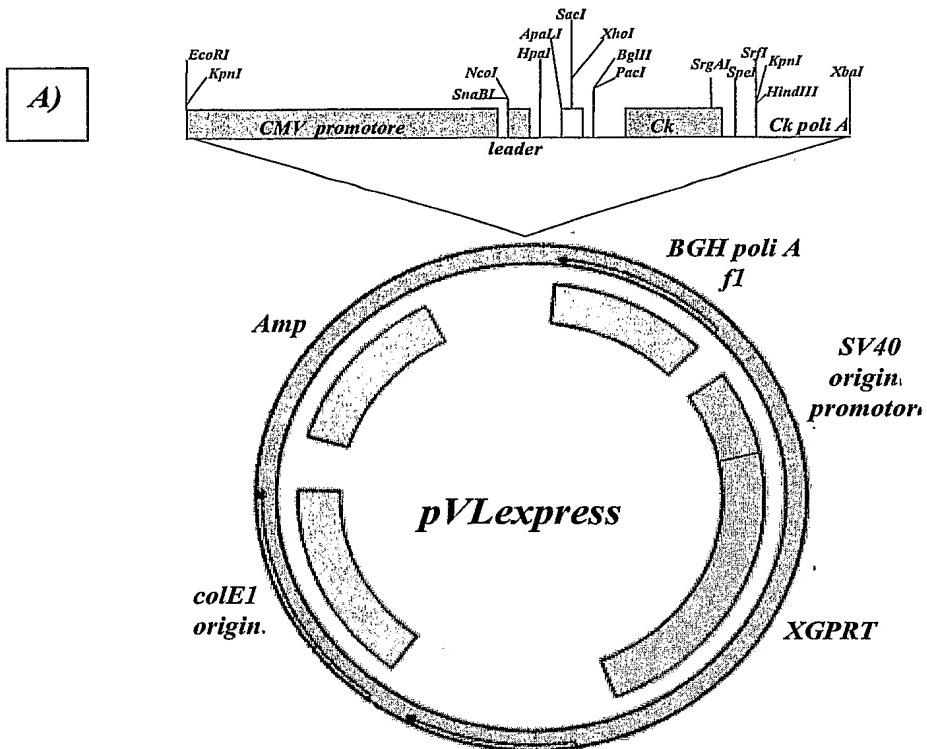
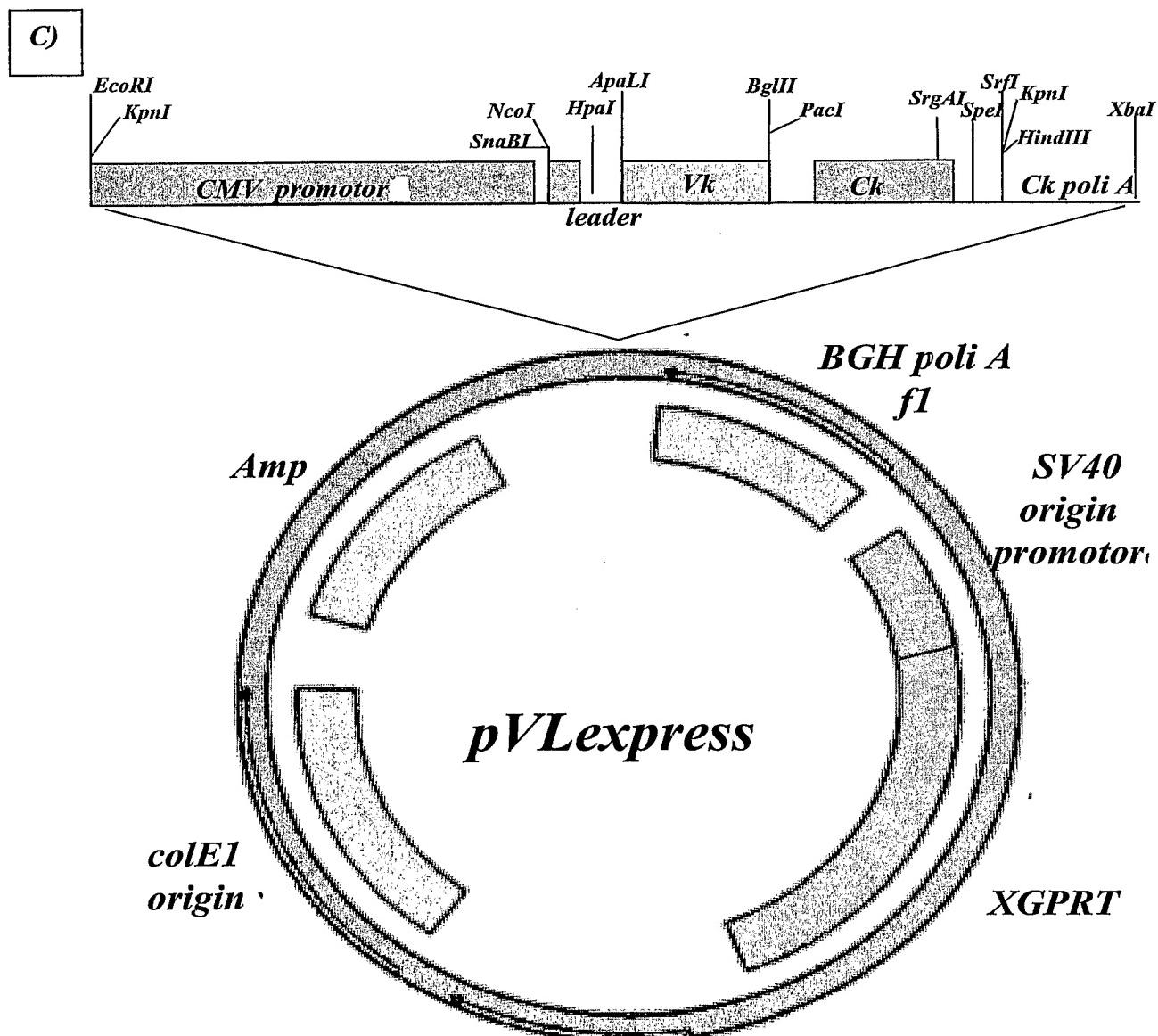
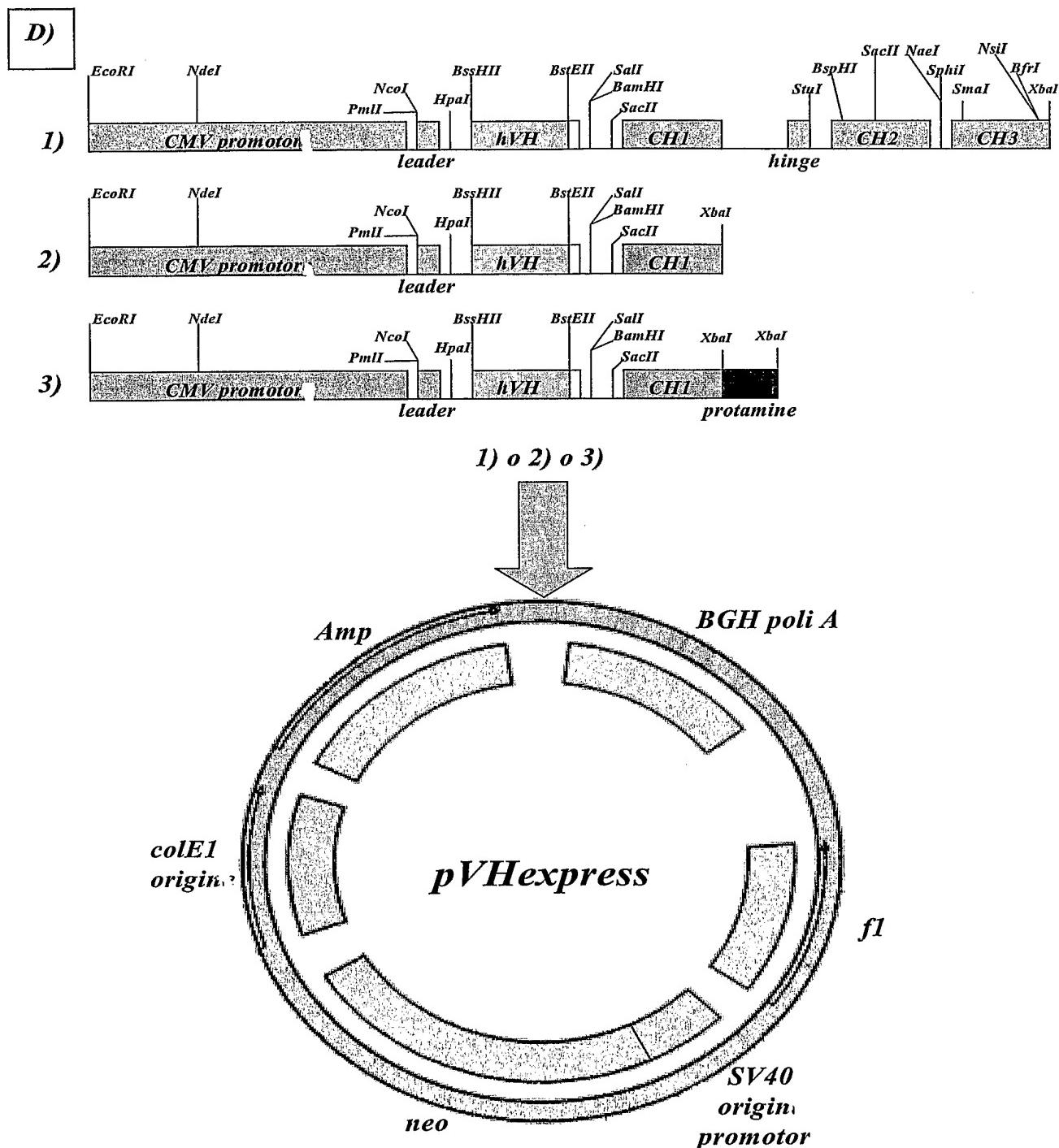
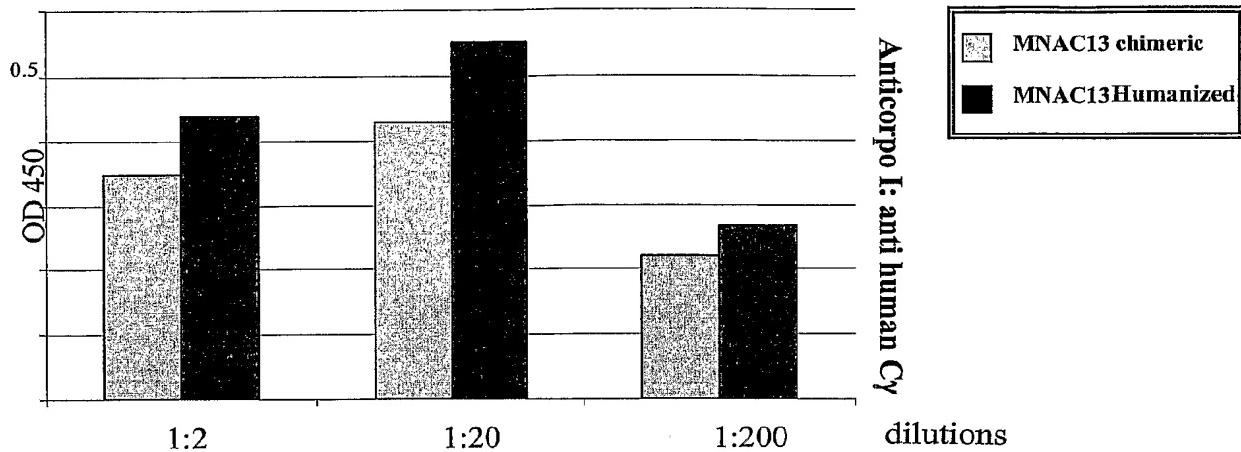
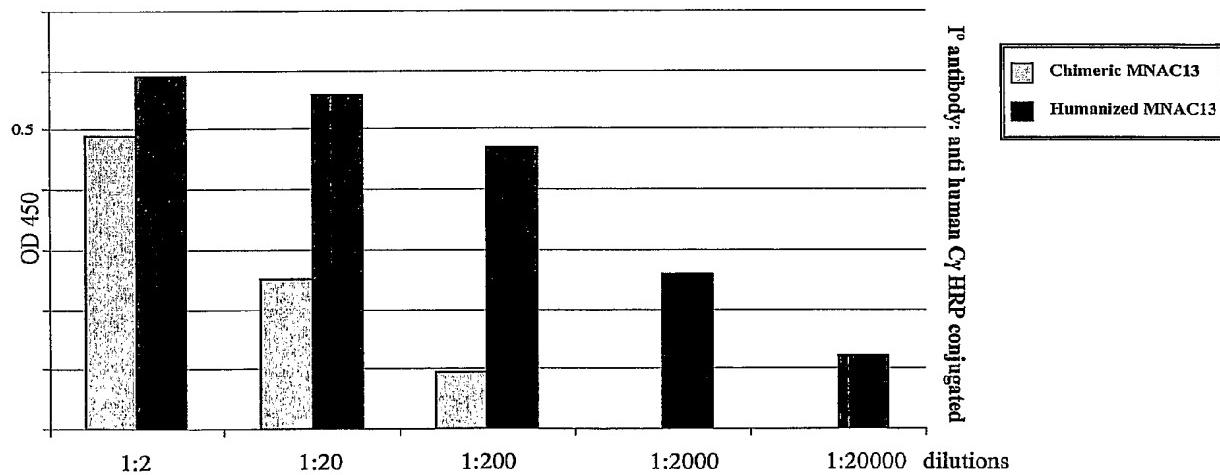
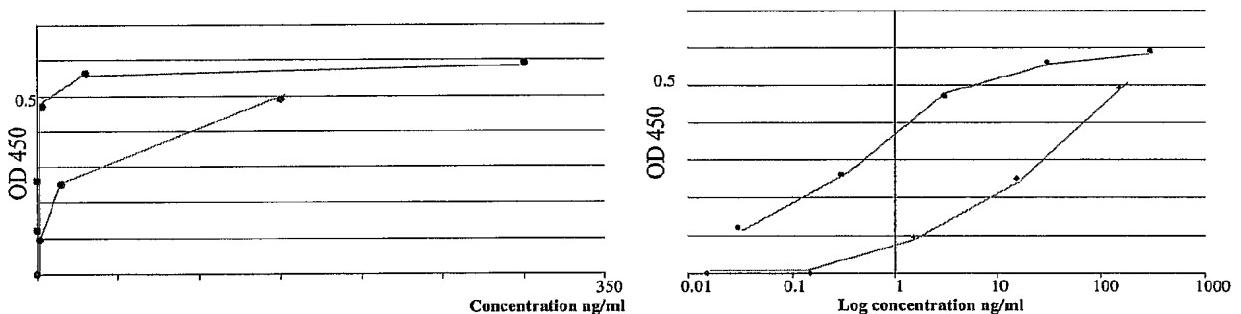
**FIG. 9 (1 of 3)**

FIG. 9 (2 of 3)



**FIG. 9 (3 of 3)**

**FIG. 10****a) supernatants of transfected COS cells****b) G protein sepharose purified supernatants of transfected COS cells**

**FIG. 11****BINDING ACTIVITY TOWARDS NGF**